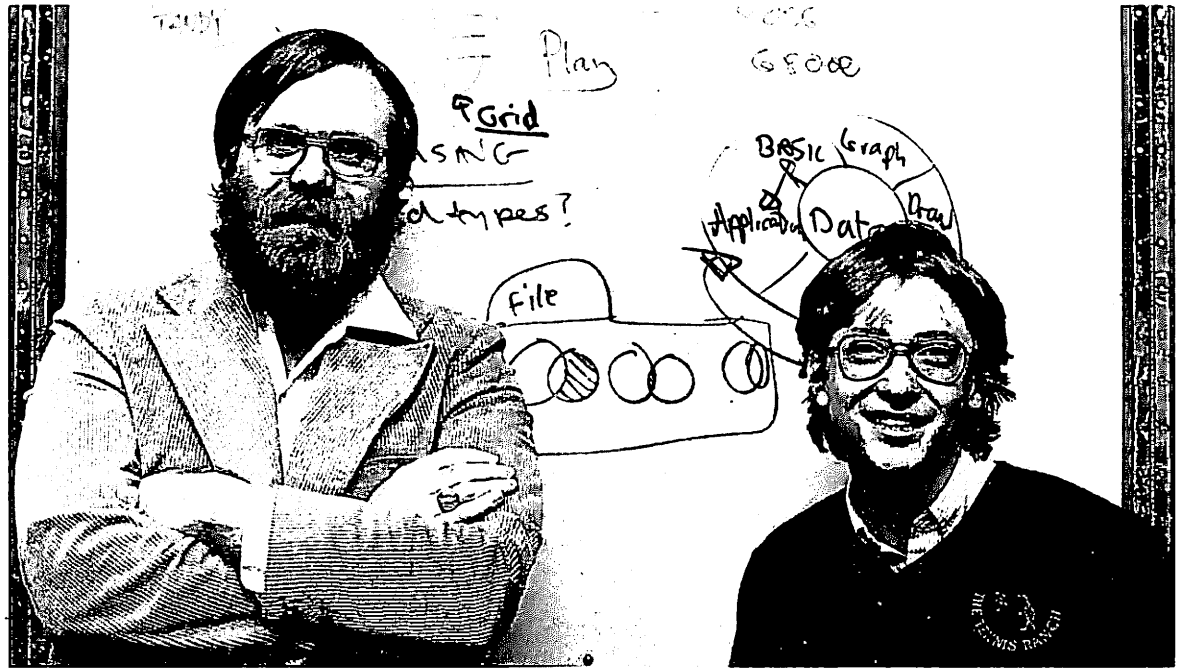
The Seattle Times

Reprinted with permission from **The Seattle Times**, Sunday, February 14, 1982, pg. A1.

Riding the big computer boom

Schoolboy curiosity launched pair toward industry leadership

by Peter Rinearson
Times staff reporter



Barry Wong/Seattle Times

Paul Allen, 29, left, and Bill Gates, 26, have turned a pivotal idea into a multimillion-dollar business in the explosively growing personal computer field.

First inquisitively, then eagerly, then passionately, two schoolboys typed commands to a computer in Seattle 14 years ago.

They were enthralled by the powerful tool and struck by their control over it. In the first week, they used $3,000 worth of computing time — the school's entire allotment for the year.

Officials at the private Lakeside School were less than pleased to see their computer budget blown.

But Bill Gates, who was in seventh grade, and Paul Allen, who was in ninth, were undaunted. They taught the computer to play Monopoly, and then commanded it to play millions of games to discover strategies which tended to succeed.

No one could foresee it then, but seven years later — at ages 19 and 22 — Gates and Allen would help revolutionize the computer industry, and in seven more they would make themselves multi-millionaire leaders in the field of programming microcomputers.

"Microcomputer" is the name given desk-top computer systems which are marketed today, generally in the $900 to $5,000 range, by companies such as Radio Shack, Apple, Commodore, and as of last August, IBM. "Microcomputer" is the word used, too, to describe the semiconductor chip which is the brain of the desk-top systems.

"Programming," also known as "software" is the instruction given a computer. It is programming which tells a computer how to play a game, or how to compute interest rates, or how to store a list of names and phone numbers.

And it is programming that fascinated Gates and Allen.

"Nobody quite understood the thing but us," Gates remembers today, thinking back to his first weeks on the computer terminal at Lakeside. "I wanted to figure out exactly what it would do."

Gates and Allen quickly discovered that they could get all the free computer time they wanted, but only if they were ingenious enough to outsmart the pros who had programmed the machine.

"Digital Equipment said that if we could find any problems with their machine we wouldn't have to pay rent," Gates recalls. "They decided to let us loose on the machine to find problems in off hours."

Gates pauses.

"We found endless problems."

By the time Gates was a high-school senior, the two landed an unusual job for a couple of teenagers. A California defense contractor, TRW, Inc., hired them to help computerize the Bonneville Power Administration electricity grid.

Two years later the two made a key discovery. They invented something the experts said was impossible. It was an invention with no physical existence, more the creation of idea than object.

Gates was playing a lot of poker in his Harvard dorm room in December, 1974, when Allen showed him a copy of the next month's issue of Popular Electronics magazine.

The cover featured the first personal computer, called an Altair. It utilized a microcomputer "chip," a thumb-sized device which had been designed initially to operate automatic elevators. The microcomputer chip was viewed in the computer industry as a tool of quite limited capabilities — and the Altair was seen almost as a novelty, a curiosity for the hobbyist.

Gates and Allen recognized the value of writing a general-purpose computer "language" for the microcomputer, preferably the well-known and easy-to-use language called "BASIC." Experts said it couldn't be done,

but they thought they could write a language to transform the microcomputer into a full-range computer—capable of adding, or storing words, or keeping data, or even playing Monopoly.

Says Gates: "People said you couldn't do a BASIC. And so we wrote one."

It took but five weeks, five feverish weeks in Gates' dorm room.

"I was trying to hold down my job at Honeywell," Allen recalls. "Bill was trying to go to class and play poker at the same time. And we were trying to write the BASIC. We really worked hard."

The result: an 8,000- instruction BASIC program. It was a software invention which gave the microcomputer chip far greater powers than anyone had foreseen. "The people who had been making the machines had no idea what the machines could do," Gates says.

The creation of BASIC for a microcomputer helped create the personal computer industry, which flourishes today. It created a complementing software industry, too.

"Without software, a machine like a Radio Shack or an Apple is a dead piece of hardware," Allen Says. "Everyone had trivial little versions of software before they licensed our stuff. But our software was so powerful, and you could do so much, that . . . for Radio Shack or Apple, probably 80 per cent of the programs are written in our BASIC."

At Allen's urging in 1975, the two created a partnership, called it Microsoft, and named their landmark program Microsoft BASIC. Today, seven years later, they employ 130 people in Bellevue, with Microsoft's 1982 sales projected to be 25 million to $30 million.

Andy Evans, who heads a high technology investment firm in Bellevue, calls Microsoft "No. 1, absolutely," in the world of microcomputer software. "To give you an example, there's hardly a Japanese (computing) machine that doesn't have some form of Microsoft software running on it."

Gates says he knows why he and his school friends succeeded.

"We believed," he says.

"Even for us, it's still kind of surprising how the whole thing developed and how quickly," Gates says. "As really, perhaps, the original people to have the vision of what the things (microcomputers) can do, I can say that even our vision fell far short of what's been achieved."

The fields of microcomputers and software, while already substantial, are growing explosively. Gates and Allen believe that microcomputers — and Microsoft — have a huge future.

MICROSOFT™

MICROSOFT CORPORATION
10700 NORTHUP WAY
BELLEVUE, WASHINGTON 98004